

LONDON- WEST MIDLANDS ENVIRONMENTAL STATEMENT

Volume 5 | Technical Appendices

CFA5 | Northolt Corridor
Baseline report (CH-001-005)
Cultural heritage

November 2013

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Department
for Transport

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High Speed Two (HS2) Limited,
Eland House,
Bressenden Place,
London SW1E 5DU

Details of how to obtain further copies are available from HS2 Ltd.

Telephone: 020 7944 4908

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.hs2.org.uk

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Contents

1	Introduction	1
1.1	Structure of the cultural heritage appendices	1
1.2	Content and scope	1
1.3	Study area	1
1.4	Data sources	1
1.5	Surveys undertaken	1
2	Geology, topography and landform	2
3	Archaeological and historical background	3
3.1	Early prehistory	3
3.2	Later prehistory	3
3.3	Roman period	3
3.4	Early medieval	4
3.5	Medieval	5
3.6	Post medieval	6
3.7	Modern	7
4	Built heritage	8
4.2	Twentieth century	8
5	Historic map regression	9
6	Historic landscape	10
7	Historic parks and gardens	11
8	Archaeological character	12
8.1	Introduction	12
8.2	Character areas	12
8.3	Archaeological sub-zones	13
9	Analysis and research potential	15
9.1	Analysis of understanding	15
9.2	Research potential and priorities	15
10	Information sources	17
10.1	References	17

10.2	Cartographic sources	18
10.3	Other sources	19

List of tables

Table 1:	Archaeological sub- zones	13
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1 Introduction

1.1 Structure of the cultural heritage appendices

1.1.1 The cultural heritage appendices for the Northolt Corridor community forum area (CFA5) comprise:

- baseline reports (this appendix);
- a gazetteer of heritage assets (Volume 5: Appendix CH-002-005); and
- an impact assessment table (Volume 5: Appendix CH-003-005).

1.1.2 Maps referred to throughout the cultural heritage appendices are contained in the Volume 5, Cultural Heritage Map Book.

1.2 Content and scope

1.2.1 This baseline provides the evidence base against which the assessment of assets that may be affected by the Proposed Scheme can be determined. It contains information about known and potential heritage assets and presents a chronological description and discussion of the development of the study area, placing assets within their historical and archaeological context.

1.3 Study area

1.3.1 CFA5 lies within Greater London and comprises parts of the London Boroughs of Brent, Ealing and Harrow.

1.3.2 All non-designated and designated assets within the land required, temporarily or permanently, for the construction of the Proposed Scheme and within 250m of it have been detailed in this baseline assessment. In addition, designated heritage assets have been examined within the zone of theoretical visibility (ZTV).

1.3.3 All identified assets are listed in Volume 5: Appendix CH-002-005 and shown on maps CH-01-013 to CH-01-018a and CH-02-006 to CH-02-008a (Volume 5, Cultural Heritage Map Book).

1.4 Data sources

1.4.1 Sources examined as part of this baseline assessment include published secondary sources, cartographic sources, historic environment record data for undesignated heritage assets and English Heritage National Heritage List data for designated assets. A full list of published sources can be found in Section 10 of this appendix.

1.5 Surveys undertaken

1.5.1 Site reconnaissance field inspections to review the setting of historic assets and the character and form of the historic landscape were undertaken as part of the environmental impact assessment process.

2 Geology, topography and landform

- 2.1.1 The bedrock geology of the study area is the London Clay Formation. There are superficial deposits of alluvium and River Terrace Gravels that are associated with the River Brent. These can be found approximately between Alperton Lane to the west and West Gate to the east of the River Brent. There is also an alluvial deposit following the alignment of the A127 Greenford Road which is associated with river channels of a former tributary to the River Brent. In areas of River Terrace Gravels there is a potential for the recovery of Palaeolithic artefacts. These are generally re-deposited as a result of river flooding that took place during the interglacial interludes.
- 2.1.2 Modern industrial, road and rail development is likely to have resulted in a cover of made ground throughout the majority of land required, temporarily or permanently, for the construction of the Proposed Scheme. This may have resulted in the localised loss of archaeological deposits.
- 2.1.3 The topography of the study area gently rises from between approximately 29m above Ordnance Datum (AOD) and 45m AOD along the proposed route to 85m AOD at Horsenden Hill and 118m AOD at Harrow on the Hill to the north.

3 Archaeological and historical background

3.1 Early prehistory

- 3.1.1 Hunter gatherer societies of the early prehistoric periods are likely to have been very mobile communities. There is no known evidence of dwellings within the open landscape in Britain as opposed to cave sites which can provide better preservation of material¹. The evidence for anthropogenic activity from this period is found in the form of stone tools and debitage from tool production survives within secure or re-deposited gravel beds. This evidence would not be expected within areas of London Clay. This is because glacial and periglacial erosion, particularly during the Anglian and Wolstonian Glaciations, would have effectively scoured and re-deposited the geology of the study area during the early prehistoric period.
- 3.1.2 There is evidence of an in-situ lithic working site dating to the Lower Palaeolithic to the south of the study area at what is now Creffield Road to the east of Ealing Common. The site is located within a geological deposit of River Terrace Gravels although not a deposit associated with the channel of the River Brent. There was a high volume of lithic debitage providing evidence for hand axe and tool production. The in-situ nature of these finds is unusual for evidence from this period, and suggests that this area provided suitable conditions for hunter gatherers to exploit the landscape during the interglacial periods.
- 3.1.3 Within the study area there are two sites where individual Palaeolithic implements have been recorded (NORo61 and NORo64). These were not found in-situ but within a secondary, re-deposited context. This is the result of fluvial erosion that took place during the interglacial interludes. The presence of such finds from this period is the primary reason for the River Brent archaeological priority zone. There is no further evidence from the early prehistoric or Bronze Age periods although this may partially be due to a lack of archaeological investigations in this area.

3.2 Later prehistory

- 3.2.1 The study area is located to the south of an Iron Age hill fort, Horsenden Hill (NORo07), identified by the local planning authority (LPA) as an archaeological priority zone. The presence of the hillfort indicates that the surrounding landscape is likely to have been managed in the Iron Age and Roman period, with planned land divisions and a settlement focus on the river terraces within the wider area. No physical evidence has been identified within the study area, however, to support the presence of further occupation in the Iron Age or Roman periods.

3.3 Roman period

- 3.3.1 There are no known sites or finds within the study area which date to the Roman period. The study area is peripheral to the Roman settlement of London (known as

¹ Darvill, T., (2010), *Prehistoric Britain*, Routledge, London. P28-46.

Londinium) which is thought to have been established soon after AD 43 when the Romans are recorded as crossing the River Thames under Aulus Plautius in advance of the arrival of Emperor Claudius².

3.3.2 The Romans constructed major roads connecting their main settlements. The major Roman roads closest to the study area are as follows:

- the London to Silchester Road (Margary 4a³) which lies to the south-east;
- the London (Marble Arch) to St Albans (Verulanium) road (Margary 1d⁴) which lies to the north-east; and
- the St Albans (Verulanium) to Laleham road, which lies to the west.

3.3.3 None of these Roman roads lie close enough to the study area to be shown on the maps of the Volume 5, Cultural Heritage Map Book. The lack of Roman remains can partially be attributed to the lack of any major Roman roads from London crossing this area, along with the heavy London Clay, which will have made the area unattractive for settlement. The area may therefore have been largely managed farmland at this time closely tied to the economic demands of Londinium.

3.4 Early medieval

3.4.1 The likelihood is that the area continued to be farmed and followed a similar pattern of Anglo Saxon farming development recorded in other parts of England. There is evidence to suggest that Anglo Saxon towns such as London had a heavy reliance on cattle as a meat source which would have required a system of meat producers in the peripheral communities to supply the necessary livestock. This emerging demand is likely to have led to a greater degree of specialisation geared towards emerging markets for meat and wool in order to supply towns, monasteries and the royal and aristocratic centres⁵.

3.4.2 There is archaeological evidence to suggest there was early medieval settlement located at Northolt (NOR009). It is thought that this was located on the higher ground to the north-east of the medieval core of Northolt and dates from as early as the eighth century. This is identified as the Northolt Village Green archaeological priority zone. Archaeological evidence for domestic sites and burials⁶ dating from this period has also been identified just to the south of the study area in Belvue Park.

3.4.3 A settlement at West Twyford (NOR057), situated on the western side of Hanger Lane, is likely to have originated in the early medieval period following the increased farming and clearance of Middlesex Forest⁷. At the time of the Domesday Survey of

² Cockburn, J.S., King, H.P.F. and McDonnell, K.G.T.(ed.), (1969), *A History of the County of Middlesex: Volume 1: Physique, Archaeology, Domesday, Ecclesiastical Organization, The Jews, Religious Houses, Education of Working Classes to 1870, Private Education from Sixteenth Century*, Victoria County History: Middlesex. P64-74.

³ Margary, I.D., (1973), *Roman Roads in Britain*, 3rd Edition, John Baker, London. P84.

⁴ Margary, I.D., (1973). P170.

⁵ Cherry, B. and Pevsner, N. (eds), (2002), *The Buildings of England; London 3: North West*, Yale University Press, New Haven and London. P187.

⁶ Baker, T.F.T., Cockburn, J.S. and Pugh, R.B. (eds), (1971), *Perivale: Introduction, A History of the County of Middlesex: Volume 4: Harmondsworth, Hayes, Norwood with Southall, Hillingdon with Uxbridge, Ickenham, Northolt, Perivale*, Victoria County History: Middlesex. P122-123.

⁷ Baker, T.F.T. and Elrington, C.R. (ed.), (1982), *West Twyford: Introduction, A History of the County of Middlesex: Volume 7: Acton, Chiswick, Ealing and Brentford, West Twyford*, Victoria County History: Middlesex. P172-173.

AD 1086 a small settlement of six holdings was recorded and by AD 1181 there is a record of a small chapel serving this community. The medieval village became deserted, probably during the late 13th century, later permitting the lords of the manor to enclose all the land into their demesne. By 1593 the manor house was the only habitation in the parish and the church had become a private chapel⁷.

- 3.4.4 The nature of the Saxon land use did not necessarily alter but instead adapted from the mid to late Saxon period as economic pressures changed. It was a system efficient enough to maintain a network of small towns and markets and acted as the basis of development well into the later medieval period.

3.5 Medieval

- 3.5.1 The medieval occupation was based around small settlements (NOR009, NOR043 and NOR057), isolated manors (NOR007 and NOR021) and individual farmsteads.
- 3.5.2 The development of the medieval core of Northolt was centred on St. Mary's Church (NOR004). The 13th century saw development of an area of settlement in the shallow valley to the west, which replaced the early medieval focus on the higher ground to the north-east of the church⁸. Shortly after a stone manor house and moated site was constructed within the settlement. St Mary's Church sits to the south-west of a medieval moated site. The body of the church is circa 1300 and aisle-less with a chancel added in 1521 and later alterations in the post-medieval period⁹.
- 3.5.3 There are three extant moated medieval manor sites surrounding the study area. Two are within the ZTV. These are Sudbury moated site (NOR007), Down Barns moated site (NOR021) and a further moated manor at Belvue Park in Northolt (NOR010). The site of a further medieval moated manor and hamlet is known from Twyford Abbey (NOR002). This has been identified as a LPA archaeological priority zone. Manor sites reflect the growing class distinction that developed within communities from the mid-12th century onwards. Many moated manors came into existence in the mid-13th century which may partly be because of legal and economic prohibitions on castle building; a moat gave an echo of a castle but was not meant to be seriously defensive¹⁰. The Sudbury moated manor is thought to be the location of the medieval manor house of Greenford Parva which was recorded as ruinous in 1342. The manor name Greenford Parva was the historic name for the parish of Perivale. The manor at Down Barns Farm has no historical reference from the 15th century onward¹¹.
- 3.5.4 Charville Lane (NOR069) in the western part of the Northolt Corridor, now Eastcote Lane, is a possible medieval trackway with perhaps earlier origins as a prehistoric ridgeway linking Northolt to Hillingdon in the west. It is likely that the trackways which linked the medieval settlements also had their origins in the medieval period. These tracks are recorded on early maps of the study area such as Rocque's map of 1746¹².

⁸ Baker et al, (1971), P109-113.

⁹ Cherry and Pevsner, (2002), P187.

¹⁰ Hinton, D.A., (1990), *Archaeology, Economy and Society: England from the fifth to the fifteenth century*, Routledge, London. P162-163.

¹¹ Baker et al, (1971), P109-113.

¹² Rocque, J., (1746), *A plan of the cities of London and Westminster, and borough of Southwark*.

3.6 Post medieval

- 3.6.1 The study area remained mainly rural into the 20th century with the exception of Acton which was subsumed as a London suburb during the late 19th century¹³. The site of Manor Farm (NOR006), Perivale, is an example of the rural character of the area during this period and has been identified as a LPA archaeological priority zone.
- 3.6.2 In 1795 the Grand Junction Canal Company was empowered to construct the easterly cut of the canal from Bull's Bridge in Norwood to Paddington. The Grand Junction Canal (NOR047) was opened in 1801 but did not attract significant development¹⁴. On the 1st Edition 1891 Ordnance Survey (OS) map of Middlesex the only development relating to the canal is recorded to the north of the study area where Oldfield Lane North crosses the canal. Here a 'Colour Factory' with a coal wharf has been identified on the mapping.
- 3.6.3 In the early 19th century two main line railways were constructed through the study area, the first being the London to Birmingham Railway (NOR048) completed in 1837 and engineered by Robert Stephenson. The Great Western Railway (GWR) (NOR050) followed shortly after and was constructed in 1838 and engineered by Isambard Kingdom Brunel. These did not have any significant impact on the surrounding landscape which remained predominantly rural throughout the 19th century. It is evident from examination of the 1st Edition OS map of 1881 that the study area remained characterised as predominantly agricultural with enclosed field systems.
- 3.6.4 On the 1881 OS map a large house named Rose Villa is recorded in the location north of the modern Hanger Lane gyratory system and Hanger Lane Station (NOR037). The site was then occupied by a new house named Dibden House on the 1896 2nd Edition OS map. The Lodge of Dibden House and some cottages named Napier Cottages are all within the study area. By 1915, once the Great Western and Great Central Joint (NOR044) had been constructed, Dibden House is no longer marked although Napier Cottages remain. When the road bridge carrying Hanger Lane over the railway line was constructed Napier Cottages are no longer present on the 1935 OS map.
- 3.6.5 The rural character of the study area is likely to have followed a similar agricultural development as the wider British landscape. From 1750-1850 there were major changes resulting from a combination of labour relations and land ownership, field enclosure, crop changes and rotations paired with the increasing economic demand of the growing industrial centres. The most significant change to the landscape was the result of parliamentary enclosure. This marked a phase which re-shaped the landscape from the medieval system of open fields into regular enclosed field systems. The resultant fields were typically rectilinear in shape, marked out on a map first and then marked out on the land itself by professional surveyors. The field boundaries often ignored local topography¹⁵. This typical pattern of enclosure fields can be seen throughout the study area on the 1881 and 1896 OS maps and remain largely unchanged into the 20th century.

¹³ Cherry and Pevsner, (2002). P155.

¹⁴Baker, T.F.T., Bolton, D.K. and Croot, P.E.C., (1989), Paddington Communications. In: Elrington, C.R. (ed), *A History of the County of Middlesex: Volume 9: Hampstead, Paddington*, Victoria County History, Middlesex. P174-181.

¹⁵ Tarlow, S., (2007), *The Archaeology of Improvement in Britain 1750-1850*, Cambridge University Press, Cambridge. P34-66.

3.7 Modern

- 3.7.1 The catalyst for most of the development in the study area was the industrial development of the 1930s. One of the first developments was the Sanderson's wallpaper factory in Horsenden Lane, completed in 1930. The completion of the North Circular Road in 1934-5 stimulated further economic growth. The Guinness brewery built a large factory on the Park Royal site and worker's houses immediately to the north at Iveagh Avenue and Brentmead Gardens. The Guinness factory was designed by Sir Giles Gilbert Scott and built 1933-6 and was one of the largest factories in the area. Open spaces were retained in some cases and used as sports grounds such as the Guinness Sports Club (NORo55). The site later became the headquarters of the multi-international beverage company Diageo who formed from a merger with Guinness in 1997. Their Park Royal site was subsequently redeveloped following the brewery's closure in 2004. Another industrial development of note is the Hoover factory and canteen (NORo26) built 1931-5 in period Art Deco style. By 1939 the development of the study area was virtually completed¹⁶. The area between Western Avenue, Horsenden Lane, and the Paddington Canal was almost entirely covered by factories and houses. Industrial building was concentrated in an area immediately north of the railway line in and around Wadsworth Road and Bideford Avenue. Residential development was concentrated along the north side of Western Avenue and in the central area of the parish between the railway line and the canal.
- 3.7.2 The residential and industrial buildings which characterise most of the study area were not built until the 1930s. There were a number of industrial park and residential buildings constructed speculatively during this period. This resulted in the rapid expansion of Acton, Perivale and Northolt¹⁷. This can partly be explained by the opening of the A40 Western Avenue in 1927 which provided good road transport into the study area. The A40 currently forms a boundary between the industrial and residential areas to the north and the River Brent floodplain to the south. There are green spaces across the study area preserved in the form of golf courses and playing fields. An example of this is land adjacent to the River Brent in the form of Ealing Golf Course, playing fields and allotments. The site of Horsenden Hill is similarly preserved as a recreation ground and Sudbury Golf Course. The pattern of distinct villages and isolated farmsteads was completely transformed as the study area became amalgamated into a peripheral district of the London Borough of Ealing.
- 3.7.3 During the Second World War many of the factories shifted to military production and the area suffered from frequent air raids. The site of an explosives factory is recorded within the Greater London historic environment record as being located within the study area although the exact location is unknown (NORo67). As a response to air raids a heavy anti-aircraft battery was placed on the site of modern Ealing Golf Course (NOR60).

¹⁶ Baker et al, (1971), P109-113.

¹⁷ Baker et al, (1971), P122-123.

4 Built heritage

- 4.1.1 Twyford Abbey (NOR002) is the rebuilt manor house of West Twyford parish. The building was constructed 1807-9 by William Atkinson (principally known as a country house architect of the early 19th century) for Thomas Willan. At the time the house was still the only building recorded in the Parish. Thomas Willan is of historical interest as a dairy farmer who held the lease on the land which later became Regent's Park. He acquired the manor and employed William Atkinson to transform it into a romantic castellated abbey. It is one of the few survivals of its type around London¹⁸. The house itself is in the Gothic style with crenelated parapet, buttresses, and turrets and includes a kitchen garden enclosed by a 12 foot high brick wall. At the same time as Thomas Willan decided to rebuild the manor he also had Twyford Abbey Farm built for the principal tenant. There was a slow development within West Twyford with a third house added in 1821 and a fourth by 1831. Then between 1861 and 1881 nine further houses were built including a farmhouse to the south of Twyford Lane named Twyford House.
- 4.1.2 The church of St Mary (NOR002) at Brentmead Gardens was built by 1808 again by William Atkinson for Thomas Willan. The church encased the previous 17th century chapel which itself replaced or incorporated an earlier medieval church or chapel. The church was further enlarged in 1958 by N.F. Cachemaille-Day (a renowned church architect of the early 20th century). A church was first recorded at Twyford in 1181 and in the medieval period was linked with the manor which in turn was owned by St Paul's Cathedral. In 1636 the manor was acquired by the Moyle family who appear to have rebuilt or remodelled the church in the 17th century. The enlargement in 1958 by N.F. Cachemaille-Day used a non-period modernist approach building on a scale that incorporated the original church as the chancel.

4.2 Twentieth century

- 4.2.1 In the 20th century the expansion of London led to a series of new suburban rail stations. Brian Lewis (1906-1991) designed several stations for the GWR after joining their architectural staff in 1930. His stations include Perivale Underground Station (NOR027), West Acton Underground Station (NOR011), Hanger Lane Station (NOR037) and Greenford Station (NOR041). Their style echoes that of the Charles Holden (1875-1960) Art Deco stations but with far simpler detailing. Although the stations were built by the GWR they form part of the London Underground New Works Programme, published 1935. The programme proposed that instead of expansion there should be a focus on linking the suburban railways to the London Underground Central, Northern and Bakerloo lines and additionally to electrify them.

The Hoover Factory

- 4.2.2 The Hoover Factory (NOR026) was built 1931-5 and was designed by Wallis, Gilbert and Partners. Described by Pevsner in 1951 as "Perhaps the most offensive of the modernistic atrocities along the road of typical bypass factories"¹⁹, its brash Art Deco

¹⁸ Cherry and Pevsner, (2002), P198.

¹⁹ Cherry and Pevsner, (2002), P191.

styling and white glazing were designed to catch the eye of passing motorists. Eighty years on the building is now appreciated for its architectural merit. Bridget Cherry gives a new appraisal to the building noting how its modern styling helped advertise the company's modern aids to cleaning²⁰. The building includes many Art Deco features including massive Egyptian pillars along the front with ornate detailing, quadrant windows with green glazed bars, a central doorway with glass sunray above and contemporary gate piers and railing with art deco Egyptian motifs. To the west is the canteen (1938) which is similarly in brash Art Deco style, white glazed period windows and green glazed bars. The factory closed in 1982 and the back of the building was converted into a supermarket in 1992.

The IBM distribution centre

- 4.2.3 The IBM distribution centre (NORo40) was designed by Norman Foster and Partners and completed 1980. The building was commissioned following Foster and Partners successfully designing the IBM pilot head office at Cosham, Hampshire in 1970 to 1972. The building is designed to zone multiple process areas whilst also incorporating workers and managerial staff within the same building to provide an egalitarian ethos in the workplace. The original building was designed to be a monolithic structure, but plans to incorporate a 'computer hall' led to a revision with two distinct buildings connected by a walkway over Greenpark Way. To the north is the support centre completed in 1977 and to the south is the larger workshop and warehouse known as the United Kingdom Distribution Centre, completed in 1980. The exterior has been split into transparent sections constructed in large glass panels and opaque strips constructed in horizontally ribbed aluminium sheeting. The buildings have a plain low block form with a modern appearance provided by the glazing, even roofline and concealed services. The site has an industrial character suitable for its function. The recent addition of truck bays to the east of the distribution centre detracts from the visual appearance. The surrounding architecture is industrial and the close proximity to major roads provides a similar backdrop as when the building was constructed. The building is of interest as an early example of the Hi-Tech movement designed by one of Britain's foremost contemporary architects.

5 Historic map regression

- 5.1.1 The analysis of the cartographic evidence for the study area has been integrated within the archaeological and historical baseline narrative (Sections 3 and 4).

²⁰ Cherry and Pevsner, (2002), P190-191.

6 Historic landscape

- 6.1.1 The study area lies within the medieval Middlesex Forest, an expansive area of intermittent deciduous woodland rising north towards Willesden. There is evidence of settlement from the early medieval period onwards within the study area. The study area was characterised by small distinct villages, individual farmsteads and manors within a rural landscape until the 20th century. The study area followed a relatively similar development based around a rural economy with a pattern of enclosed fields developing out of the medieval open field system.
- 6.1.2 The surrounding residential areas of Acton, Perivale and Northolt were developed during the early 20th century in conjunction with industrial parks. The development of the A40 and North Circular Road provided the catalyst for the development along with new rail stations located across the study area.
- 6.1.3 The floodplain of the River Brent and Horsenden Hill are two large areas of green space within the study area. Both would have historically been agricultural land but are now maintained as golf courses, playing fields and recreational ground. This has protected them from envelopment by the surrounding 20th century industrial parks and residential estates.

7 Historic parks and gardens

- 7.1.1 There are no Grade I, II* or II registered parks and gardens within 2km of the area of land required, temporarily or permanently, for the construction of the Proposed Scheme.

8 Archaeological character

8.1 Introduction

- 8.1.1 To determine the archaeological potential of the study area, it has been classified as a particular type of archaeological character area. The archaeological character area has been derived from a consideration of the current topography, geology and current land use of the area. From these factors the potential for recovery of archaeological remains is considered.
- 8.1.2 The landscape was further subdivided into archaeological sub-zones, which have allowed for a more in-depth understanding of the archaeological potential of the study area. The study area has been sub-divided into seven archaeological sub-zones. Although initially defined and characterised by current land use a number of additional factors have determined the potential of these sub-zones to contain archaeological remains of significance. These factors include topography, geology, historic character and distribution of known archaeological finds, sites and assets.

8.2 Character areas

Archaeological character area: Suburban London

- 8.2.1 This broad character area encompasses the entire study area. It reflects the general development of a largely rural landscape that has undergone large-scale suburban development from the early 19th century onwards.
- 8.2.2 There is historical documentation which can trace the general land use developments from the medieval period onwards. The small-scale settlement was mainly focused in small rural settlements, farmsteads and manors. This developed with the economic demands of a peripheral region of London. In the 17th century to 18th century this led to the enclosure of field systems alongside developments in farming practice.
- 8.2.3 The late 19th and early 20th centuries saw the beginning of industrialisation in the area with the construction of a number of railways and canals across the archaeological character area and the surrounding landscape. The resultant character is a mixture of residential developments and industrial areas which have led to large scale ground disturbance, decreasing the potential for recovery of archaeological remains.

8.3 Archaeological sub-zones

Table 1: Archaeological sub- zones

Number	Name	Topography	Geology/soils	Modern land use	Historic landscape character	Archaeology
1	Twentieth century residential	Gentle rise to north	London Clay Formation	Twentieth century residential	Rural	Post medieval archaeological remains and evidence of post medieval truncation to ground surface.
2	Industrial park	Gentle rise to north	London Clay Formation	Twentieth century industrial park	Rural	No known archaeological remains. There is likely to have been some disturbance caused during the construction of the industrial buildings.
3	River Brent	Generally level	River Terrace Gravels	Recreation and golf course	Rural	An archaeological priority zone in which there is evidence for medieval settlement and land management. Modern use as part of a 20th century park and golf course bordering the River Brent.
4	Twyford Abbey	Generally level	London Clay Formation	Residential	Rural	Site of Twyford Abbey archaeological priority zone.
5	Horsenden Hill	Rise to Horsenden Hill	London Clay Formation	Recreation and golf course	Rural	Horsenden Hill and a medieval moated site form the focus of an archaeological priority zone. The area is historically shown as agricultural.
6	Northolt	Gentle rise to north	London Clay Formation	Residential	Rural	Northolt Manor, a medieval moated site, forms the centre of an archaeological priority zone in which there is also evidence for an Anglo Saxon settlement nearby.
7	Ickenham Marsh	Generally level	London Clay Formation	Recreation	Rural	Open countryside historically the Ickenham Marsh farmland.

9 Analysis and research potential

9.1 Analysis of understanding

9.1.1 The primary archaeological evidence in the study area comprise:

- Palaeolithic flint implements (NORo61 and NORo64) recovered from the river terrace deposits associated with the River Brent;
- Horseden Hill Iron Age hillfort (NORo07) and its surrounding managed landscape;
- early medieval settlements at West Twyford (NORo57) and Northolt (NORo09) both of which expanded through the medieval and post-medieval periods;
- medieval moated manor and hamlet at Twyford Abbey (002) the focus of an archaeological priority area; and
- nineteenth century major transport routes including the Grand Junction Canal (1801), the London to Birmingham Railway (1837) and the GWR (1838).

9.1.2 There is no specific intelligence indicating that in-situ archaeological remains survive within the land required, temporarily or permanently, for the construction of the Proposed Scheme. The evidence suggests that parts of the study area were occupied from at least the late prehistoric periods

9.2 Research potential and priorities

9.2.1 Work on the Proposed Scheme has the potential to increase our archaeological knowledge and understanding of this area. Many research questions can best be formulated at either a scheme-wide or at a county/multiple CFA level. These will draw heavily on the regional and period research frameworks which have been prepared with support from English Heritage.

9.2.2 The Proposed Scheme is within tunnel throughout this particular study area meaning that construction activities are limited to specific locations. Because of this the opportunity for research is more limited here than elsewhere along the route.

9.2.3 This section presents research questions which are specific to the heritage assets, either known or suspected, within this study area:

- can the regional chronology for the early and later prehistoric periods be refined in this area and be tied into national chronological frameworks, taking the opportunity to clarify extant river terrace gravel sequences²¹;
- is there any direct evidence of the nature of land use in the later prehistoric period and any evidence for activity associated with Horsenden Iron Age hillfort?;

²¹ Museum of London, (2002), *A research framework for London Archaeology*, English Heritage. P18.

- is there any direct evidence to show how the relationship between the hinterland and territorium of Londinium operated²²?
- can the origins of rural early-medieval and medieval settlement on the fringes of London be better understood?
- is there an opportunity to further the understanding of the influence of pre-existing landscape on subsequent medieval and post-medieval development²²?; and
- to what extent does the built heritage identified within the Proposed Scheme area provide a history of house design and construction changes?

²² Museum of London, (2002), P30.

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